CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 85-61
NPDES PERMIT NO. CA0110116

REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

U.S. NAVY, NAVAL SUPPORT ACTIVITY
TREASURE ISLAND, SAN FRANCISCO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Board, finds that:

1. The United States Navy, hereinafter called the discharger, submitted a report of waste discharge dated December 21, 1984, for reissuance of NPDES Permit No. CA0110116 for the Naval Support Activity, Treasure Island. The discharge is presently governed by waste discharge requirements contained in Order No. 80-23 issued by the Board on May 20, 1980. Previous waste discharge requirements were prescribed by the Environmental Protection Agency and became effective on January 31, 1975.

2. The discharger presently discharges an annual dry weather average of 0.7 million gallons per day (mgd) of domestic waste from its wastewater treatment plant located on the north side of Treasure Island into San Francisco Bay, a water of the United States, at latitude 37 Deg/49 Min/50 Sec and longitude 122 Deg/21 Min/25 Sec. The waste receives secondary treatment (trickling filter) with chlorination and dechlorination, and is discharged through a submarine outfall 400 feet offshore in 30 feet of water. Average dry weather design flow is 2.0 mgd and peak wet weather design flow is 4.4 mgd. Sludge from the wastewater treatment facility is stabilized in anaerobic digesters and hauled to a regulated disposal site.

3. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on July 21, 1982. The Basin Plan contains effluent limits and water quality objectives for Central San Francisco Bay and contiguous waters.

4. The existing and potential beneficial uses of Central San Francisco Bay and contiguous waters include:

    Industrial service and process supply
    Navigation
    Water contact and non-contact recreation
    Commercial and sport fishing
    Wildlife habitat
    Shellfish harvesting
    Fish migration and spawning
    Preservation of rare and endangered species
    Estuarine habitat

5. This project is exempt from the provisions of Chapter 3 (commencing with Section 21000) of Division 13 of the Public Resources Code (CEQA)

pursuant to Section 13389 of the California Water Code.

6. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharger by reissuing NPDES Permit No. CA0110116 and has provided them an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

7. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the U.S. Navy, Naval Support Activity, Treasure Island, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Water Pollution Control Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Effluent Limitations

1. The discharge of an effluent in excess of the following limits is prohibited:

Constituents	Units	Monthly Average	Weekly Average	Daily Maximum	Instantaneous Maximum
a. Settleable Matter	ml/l/hr	0.1	-	-	0.2
b. BOD or	mg/l	30	45	-	-
CBOD [a]	mg/l	25	40	-	-
c. Suspended Solids	mg/l	30	45	-	-
d. Grease & Oil	mg/l	10	-	20	-
e. Chlorine Residual	mg/l	-	-	-	0.0

[a] CBOD is defined as Carbonaceous Biochemical Oxygen Demand.

2. The arithmetic mean of the value for BOD (or CBOD) and Suspended Solids effluent samples collected in a period of 30 consecutive days shall not exceed 15 percent of the arithmetic mean of respective values for influent samples collected at approximately the same times during the same period (85 percent removal).

3. Representative samples of the effluent shall not exceed the following limits [a]:

Constituent	Unit of Measurement	6 Month Median	Daily Maximum
Arsenic	mg/l	0.01	0.02
Cadmium	mg/l	0.02	0.03
Total Chromium	mg/l	0.005	0.01
Copper	mg/l	0.2	0.3
Lead	mg/l	0.1	0.2
Mercury	mg/l	0.001	0.002
Nickel	mg/l	0.1	0.2
Silver	mg/l	0.02	0.04
Zinc	mg/l	0.3	0.5
Cyanide	mg/l	0.1	0.2
Phenolic Compounds	mg/l	0.5	1.0
Total Identifiable Chlorinated Hydrocarbons [b]	mg/l	0.002	0.004

[a] These limits are intended to be achieved through secondary treatment, source control and application of pretreatment standards.

[b] Total Identifiable Chlorinated Hydrocarbons shall be measured by summing the individual concentrations for DDT, DDD, DDE, aldrin, BHC, chlordane, endrin, heptachlor, lindane, dieldrin, polychlorinated biphenyls, and other identifiable chlorinated hydrocarbons.

4. The discharge shall not have a pH of less than 6.0 nor greater than 9.0.

5. In any representative set of samples, the wastes as discharged shall meet the following limit on toxicity:

The survival of test fishes in 96-hour static or flow-through bioassays of the effluent shall be a 90 percentile vallue of not less than 50 percent survival. Exceptions to this limitation may be granted and revised toxicity requirements established by the Regional Board, pursuant to public hearing, if the discharger can demonstrate to the satisfaction of the Board that the following conditions are met:

a. The waste is discharged through a deepwater outfall which achieves rapid and high initial dilution;

b. The toxicants in the waste are nonconservative constituents which are rapidly decayed in the receiving water or they are conservative constituents for which water quality objectives have been established. The Regional Board will, in such cases, establish effluent mass emission rates for such constituents; and

c. A thorough investigation has determined that such an exception will not adversely affect resident and/or migratory fish or other aquatic life.

6. The total coliform bacteria for a median of five (5) consecutive effluent samples shall not exceed 240 coliform organisms per 100 milliliters. Any single sample shall not exceed 10,000 MPN/100 ml when verified by a repeat sample taken within 48 hours.

B. Receiving Water Limitations

1. The discharge shall not cause the following conditions to exist in waters of the State at any place:

   a. Floating, suspended or deposited macroscopic particulate matter or foam;

   b. Bottom deposits or aquatic growths;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge shall not cause the following limits to be exceeded in waters of the State any place within one foot of the water surface:

a.	Dissolved oxygen	5.0 mg/l minimum. Median of any three consecutive months shall not be less than 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
b.	Dissolved sulfide	0.1 mg/l maximum.
c.	pH	Variation from natural ambient pH by more than 0.5 pH units.
d.	Un-ionized ammomia as N	0.025 mg/l annual median. 0.4 mg/l maximum.

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. Provisions

1. The requirements prescribed by this Order supersede the requirements prescribed by Order No. 80-23 adopted on May 20, 1980. Order No. 80-23 is hereby rescinded.

2. Where concentration limitations in mg/l are contained in this permit, the following mass emission limitations shall also apply as follows:

   Mass Emission Limit in kg/d = Concentration limit in mg/l x 3.79 x Actual Flow in mgd averaged over the time interval to which the limit applies.

3. The discharger shall comply will all sections of this Order immediately upon adoption.

4. The discharger shall review and update annually its contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be basis for the Board considering such discharge a willful and negligent violation of this Order. The contingency plan revisions, or a letter stating no changes are needed, shall be submitted by December 30th of each year.

5. The discharger shall review and update the Operations and Maintenance (O&M) Manual annually, or in the event of significant facility or process changes, shortly after such changes have occurred. These revisions or a letter stating that no changes are needed shall be submitted by December 30th of each year.

6. The discharger shall submit a plan of interim plant reliability measures to achieve consistent compliance with this Order by June 30, 1985, and submit a letter documenting such installation and completion of these measures by September 15, 1985. If the discharger cannot meet these due dates, it shall submit a letter discussing the delay and the anticipated completion date by the above specified due date.

7. The discharger shall submit a plan of long-term plant reliability improvements by September 15, 1986. Progress reports on

construction and installation of these improvements shall be submitted on September 15, 1987, September 15, 1988, and March 15, 1989. A final completion report shall be submitted by October 1, 1989.

8. The discharger shall comply with the self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.

9. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated April 1977, with the exception of Provision A.12. and Reporting Requirements B.2. and B.3.

   Item C.2. of the Standard Provisions shall be amended to read as

   "The monthly (30-day) average discharge is the total discharge by weight during a 30 consecutive day (month) period, respectively, divided by the number of days in the period that the facility was discharging. Where less than daily sampliing is required by this permit, the monthly (30-day)average discharge shall be determined by the summation of all the measured discharges by weight divided by the number of days during the 30 consecutive calendar day period (month) when the measurements were made. For other than 30-day (month) periods, compliance shall be based upon the average of all measurements made during the specified period."

   "The weekly (7-day) average discharge is the total discharge by weight during a 7 consecutive day (week) period, respectively, divided by the number of days in the period that the facility was discharging. Where less than daily sampling is required by this permit, the weekly (7-day) average discharge shall be determined by the summation of all measured discharges by weight divided by the number of days during the 7 consecutive calendar day period (week) when the measurements were made. For other than 7-day (week) periods, compliance shall be based upon the average of all measurements made during the specified period."

10. All applications, reports, or information submitted to the Regional Board shall be signed and certified pursuant to Environmental Protection Agency regulations (40 CFR 122.41K).

11. Pursuant to Environmental Protection Agency regulations [40 CFR 122.42(a)] the Discharger must notify the Regional Board as soon as it knows or has reason to believe (1) that they have begun or expect to begin, use or manufacture of a pollutant not reported in the permit application, or (2) a discharge of a toxic pollutant(s) not limited by this permit has occurred, or will occur, in concentrations that exceed the specified limits.

12. This Order expires May 15, 1990. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

13. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Roger B. James, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Control Board, San Francisco Bay Region on May 15, 1985.

ROGER B. JAMES
Executive Officer

Attachments:
Standard Provisions & Reporting Requirements, April 1977
Self Monitoring Program
Resolution No. 74-10

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

REVISED

SELF-MONITORING PROGRAM

FOR

U. S. NAVY

NAVAL SUPPORT ACTIVITY

TREASURE ISLAND

SAN FRANCISCO COUNTY

NPDES NO. CA0110116

ORDER NO. 85-61

CONSISTS OF

PART A, dated January 1978

AND

PART B, Ordered May 20, 1980
Revised May 15, 1985

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT

Station	Description
A-1	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment that may alter influent character.

B. EFFLUENT

Station	Description
E-001	At any point in the disinfection facilities at which point adequate contact with the disinfectant is assured.

C. RECEIVING WATER - OFFSHORE STATIONS

Sampling stations shall be located offshore at the following distances from the outfall (see Figure 1):

Station	Description
CS-1	100 feet northwest of outfall
CS-2	Directly over outfall
CS-3	100 feet east of outfall
CS-4	100 feet south of outfall
CS-5	1600 feet northwest of outfall (reference station)

Station locations may be modified upon written request from the discharger to the Executive Officer within 90 days of adoption of these requirements.

D. OVERFLOWS AND BYPASSES

Station	Description
OV-1 through OV-'n'	Bypass or overflows from manholes, pump stations, or collection system.

Note: Initial SMP report to include map and description of each known bypass or overflow location.

Reporting - Shall be submitted monthly whenever bypass or overflow occurs and shall include date, time, and period of

each overflow and/or bypass.

II. SCHEDULE OF SAMPLING AND ANALYSIS

A. The schedule of sampling and analysis shall be that as given in Table I.

III. MODIFICATION OF PART "A" , DATED JANUARY 1978

A. Does not include the following paragraphs of Part A:

C.3, C.4, C.5.d, and D.4.

B. Includes the following modifications:

1. Paragraph D.2.a:

Delete the words: "...or on varying days selected at random."

2. Paragraph F.3: Self-Monitoring Reports

Self-Monitoring Reports shall be submitted for each month not later than the 15th of the month following.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 85-61.

2. Was adopted by the Board on May 15, 1985.

3. May be reviewed at any time subsequent to the adoption date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer.

ROGER B. JAMES
Executive Officer

Attachments:
Table I (2 pages)
Notes for Table I
Figure 1 - Offshore sampling station locations

TABLE I (1), (9)

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

NPDES PERMIT NO. CA0110116 ORDER NO. 85-61

Sampling Station	A-1	E-001			All CS Sta. (10)		All P Sta.		All OV Sta.				
TYPE OF SAMPLE	C-24	G(4)	C-24	Cont	G(7)		O		O				
Flow Rate (mgd)				D									
BOD, 5-day, 20° C, or C BOD (mg/l & kg/day) (3)	3/W		3/W										
Chlorine Residual & Dosage (mg/l & kg/day) (6)		2H	or	Cont									
Settleable Matter (ml/1-hr. & cu. ft./day)		3/W											
Total Suspended Matter (mg/l & kg/day) (3)	3/W		3/W										
Oil & Grease (mg/l & kg/day) (2)	M	M											
Coliform (Total or Fecal) (MPN/100 ml) per req't		3/W			M(8)								
Fish Toxicity, 96-hr. TL_{50} % Survival in undiluted waste (5)			M										
Ammonia Nitrogen (mg/l & kg/day)													
Nitrate Nitrogen (mg/l & kg/day)													
Nitrite Nitrogen (mg/l & kg/day)													
Total Organic Nitrogen (mg/l & kg/day)													
Total Phosphate (mg/l & kg/day)													
Turbidity (Jackson Turbidity Units)													
pH (units)		3/W			M								
Dissolved Oxygen (mg/l and % Saturation)					M								
Temperature (°C)		3/W			M								
Apparent Color (color units)													
Secchi Disc (inches)													
Sulfides (if DO < 5.0 mg/l) Total & Dissolved (mg/l)					M								
Arsenic (mg/l & kg/day)			Y										
Cadmium (mg/l & kg/day)			Y										
Chromium, Total (mg/l & kg/day)			Y										
Copper (mg/l & kg/day)			Y										
Cyanide (mg/l & kg/day)			Y										
Silver (mg/l & kg/day			Y										
Lead (mg/l & kg/day)			Y										

TABLE 1 (continued) (1), (9)

NPDES No. CA0110116 SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS ORDER NO. 85-61

Sampling Station	A-1	E-001			All CS Sta. (10)		All P Sta.		All OV Sta.				
TYPE OF SAMPLE	C-24	G (4)	C-24	Cont	G (7)		O		O				
Mercury (mg/l & kg/day)			Y										
Nickel (mg/l & kg/day)			Y										
Zinc (mg/l & kg/day)			Y										
Phenolic Compounds (mg/l & kg/day)			Y										
All Applicable Standard Observations		D			M		W		E				
Bottom Sediment Analyses and Observations													
Total Ident. Chlor. Hydrocarbons (mg/l & kg/day)			Y										
Un-ionized Ammonia as N (mg/l)					M								

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample - 24-hour
C-X = composite sample - X hours (used when discharge does not continue for 24-hour period)
Cont = continuous sampling
DI = depth-intergrated sample
BS = bottom sediment sample
O = observation

TYPES OF STATIONS

I = intake and/or water supply stations
A = treatment facility influent stations
E = waste effluent stations
C = receiving water stations
P = treatment facilities perimeter stations
L = basin and/or pond levee stations
B = bottom sediment stations
G = groundwaters stations

FREQUENCY OF SAMPLING

E = each occurence
H = once each hour
D = once each day
W = once each week
M = once each month
Y = once each year

2/H = twice per hour
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2/y = once in March and once in September
Q = quarterly, once in March, June, Sept. and December

2H = every 2 hours
2D = every 2 days
2W = every 2 weeks
3M = every 3 months
Cont = continuous

NOTES FOR TABLE I

1. During any day when bypassing occurs from any treatment unit(s) in the plant or to the emergency bypass, the monitoring program for the effluent and any nearshore discharge shall include the following in addition to the above schedule for sampling, measurement, and analyses:

   a. Composite sample for BOD (or CBOD) and Total Suspended Solids.

   b. Grab samples for Total Coliform, Settleable Matter, and Oil and Grease.

   c. Continuous monitoring of flow.

   d. Continuous or every two hour monitoring of chlorine residual.

2. Oil and Grease sampling shall consist of a grab sample. In the event that sampling for oil and grease shows an apparent violation of the waste discharge permit, 30-day average limitation (considering the results of one or two days' sampling as a 30-day average), then the sampling frequency shall be increased to weekly so that a true 30-day average can be computed and compliance can be determined.

3. Percent removal (effluent vs. influent) shall also be reported.

4. Grab samples shall be collected on day(s) of composite sampling.

5. Sample date for bioassay shall coincide with composite sample(s). Fish toxicity shall be calculated and reported as the percent survival of test fish for the month of analysis and as the 90th percentile value for the last ten analyses.

6. Data shall be reported using forms provided by the Board or an approved equivalent; chlorine residual analyzers shll be calibrated against grab samples as frequently as necessary to maintain accurate control and reliable operation. If an effluent violation is detected, grab samples shall be collected every 30 minutes and analyzed until compliance is achieved.

7. Samples should be collected within one foot below the surface of the receiving water body.

8. Five (5) samples per station per day shall be collected in order to determine the median of five samples taken within the last consecutive 30-day period. Samples may be collected at the same time at each station. Weekly sampling may be substituted provided that five samples within the 30-day period are collected in order to determine the median count for the station.

9. All flow other than to the outfall (e.g. sludge, etc.) shall also be reported monthly. Daily records shall be kept of the quantity (cu. yds. or cu. ft.) and solids content (%) of dewatered sludge disposed of and the location of the disposal site.

10. Receiving water monitoring frequency and sampling parameters may be

reduced at the discharger's request and demonstration and as approved by the Executive Officer when a data base has been established.

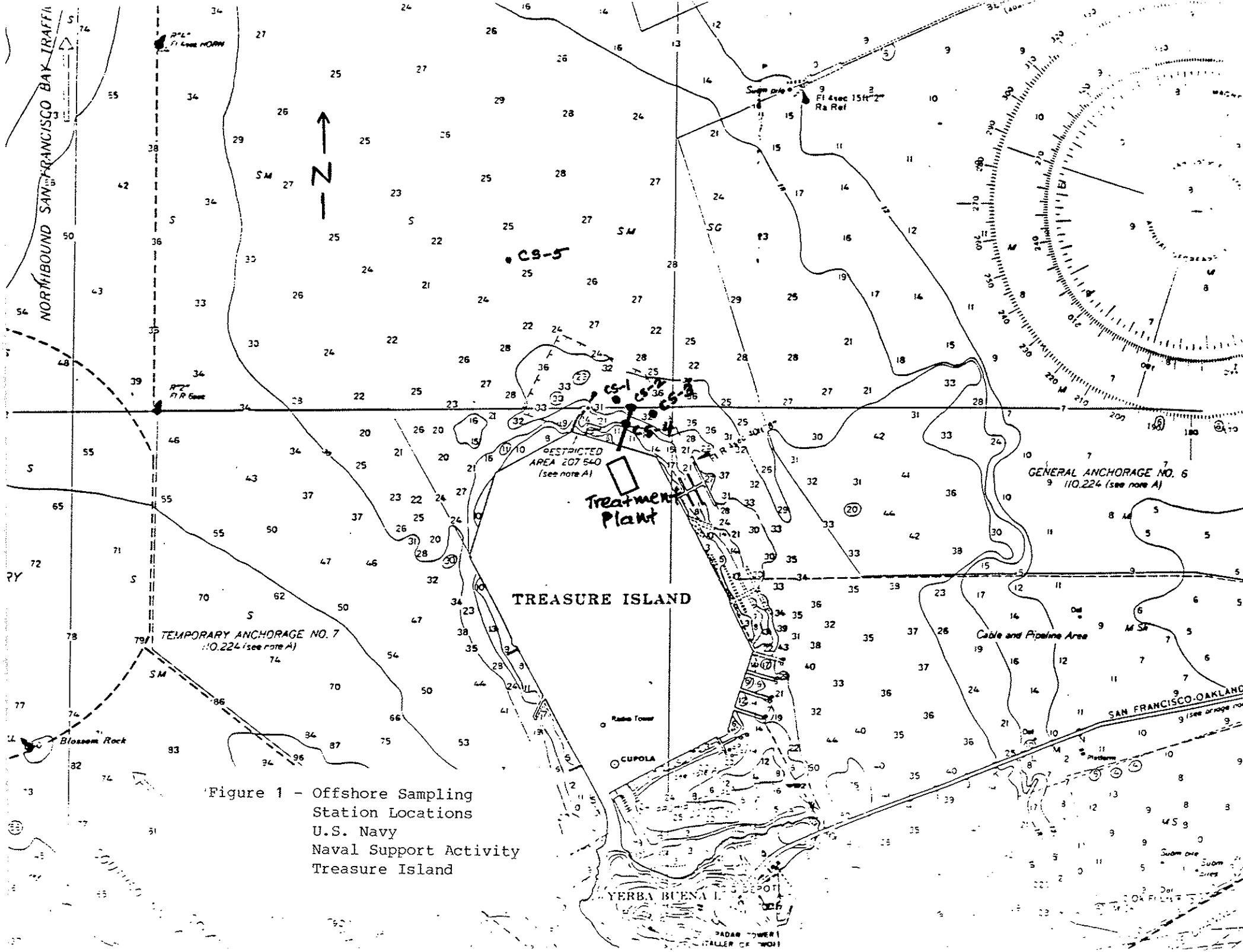

Figure 1 - Offshore Sampling Station Locations
U.S. Navy
Naval Support Activity
Treasure Island